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TECH CENTER 1600/2900

#12

615.1.TXT

SEQUENCE LISTING

<110> Padidam, Malla
Beachy, Roger
Fauquet, Claude

<120> Resistance in plants to infection by
ssDNA virus using inoviridae virus ssDNA-binding protein,
compositions and methods of use.

<130> TSRI 615.1

<140> 09/622,500

<141> 2000-08-17

<150> PCT US99/04716

<151> 1999-03-03

<150> US 60/076,627

<151> 1998-03-03

<160> 9

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 87

<212> PRT

<213> Inovirus coliphage M13

<400> 1

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| Ser | Gly | Val | Ser | Arg | Gln | Gly | Lys | Pro | Tyr | Ser | Leu | Asn | Glu | Gln | Leu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Cys | Tyr | Val | Asp | Leu | Gly | Asn | Glu | Tyr | Pro | Val | Leu | Val | Lys | Ile | Thr |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Leu | Asp | Glu | Gly | Gln | Pro | Ala | Tyr | Ala | Pro | Gly | Leu | Tyr | Thr | Val | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Ser | Phe | Lys | Val | Gly | Gln | Phe | Gly | Ser | Leu | Met | Ile | Asp | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Arg | Leu | Val | Pro | Ala | Lys | | | | | | | | | |
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<212> DNA

<213> Inovirus coliphage M13

<400> 2

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| cgtcagggca | agccttattc | actgaatgag | cagctttggt | acgttgattt | gggtaatgaa | 120 |
| tatccgggtc | ttgtcaagat | tactcttgat | gaaggtcagc | cagcctatgc | gcctgggtctg | 180 |
| tacaccgttc | atctgtcctc | tttcaaagtt | ggtcagttcg | gttccttat | gattgaccgt | 240 |
| ctgcgcctcg | ttccggctaa | gtaa | | | | 264 |

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<213> Artificial Sequence

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<223> Synthetic

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| cgccagggca | agccctacag | cctgaacgag | cagctgtgct | acgtggacct | gggcaacgag | 120 |
| taccccggtc | tggtgaagat | caccctggac | gagggccagc | ccgcctacgc | ccccggcctg | 180 |
| tacaccgtgc | acctgagcag | cttcaaggtc | ggccagttcg | gcagcctgat | gacgcaccgc | 240 |
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<212> DNA

<213> Begomovirus tomato leaf curl virus

<400> 4

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| tacatggcct | atttagtgcg | tggggatcaa | taaatagact | tgctcaccaa | gtttggatcc | 120 |
| acaaacatgt | gggatccatt | attgcacgaa | tttcccga | gcgttcatgg | tctaagggtgc | 180 |
| atgctagctg | taaaatatct | ccaagagata | gaaaagaact | attcaccaga | cacagtcggc | 240 |
| tacgatctta | ttcgagatct | cattcttggt | ctccgagcaa | agaactatgg | cgaagcgacc | 300 |
| agcagatatc | atcattttcaa | cgcccgcatc | gaaggtacgc | cgacgtctca | acttcgacag | 360 |
| cccctatgga | gctcgtgcag | ttgtcccat | tgcccgctc | accaaagcaa | aggcctggac | 420 |
| caacaggccg | atgaacagaa | aaccagaaat | gtacagaatg | tatagaagtc | ccgacgtgcc | 480 |
| aaggggctgt | gaaggccctt | gtaaagtgc | gtcctttgaa | tctaggcacg | atgtctctca | 540 |
| tattggcaaa | gtcatgtgtg | ttagtgtgtg | tacccgagga | actggactca | cacatcgctg | 600 |
| agggaaagcga | ttctgtgtga | aatctgtcta | tgtgctggga | aagatatgga | tggatgaaaa | 660 |
| catcaagaca | aaaaaccata | ctaacagtgt | catgtttttt | ctggttcgtg | accgtcgtcc | 720 |
| tacaggatct | ccccaggatt | tcggggaagt | gtttaatatg | tttgacaatg | aaccgagcac | 780 |
| agcaacggtg | aagaacatgc | atcgtgatcg | ttatcaagtc | ttacggaagt | ggcatgcgac | 840 |
| tgtgacggga | ggaacatatg | catctaagga | gcaagcatta | gttaggaagt | ttgttagggg | 900 |
| taataattat | gttggtttata | atcaacaaga | ggcgggcaag | tatgagaatc | atactgaaaa | 960 |
| cgcattaatg | ttgtatatgg | ctgtactca | cgcatacaat | cctgtatatg | ctactttgaa | 1020 |
| aatccggatc | tacttttatg | attcgccac | aaattaataa | atatccagtt | ttatatcata | 1080 |
| cgaagtccat | acatcaattg | tttgctccaa | tacattatcc | aatacatgat | aaactgctct | 1140 |
| tattacatta | taaattccta | tgacacctaa | catatccagg | tacttaagga | cctgggtttt | 1200 |
| gaagactctc | aagaaaatcc | caatctgagg | gcgtaagccc | gtccagattt | tgaaagttag | 1260 |
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| gattatgtcg | tgctgtgtta | ggaaggccct | gctgtcgtgt | ttcaaaaatt | tgaaatacac | 1380 |
| gggatttcga | atttcccagg | tatatacgcc | actctctgct | cgatccgcag | tgatgtattc | 1440 |
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| cgaccggaat | agagtgggtc | ttcgagtgtg | atgaagactg | cattcttgat | tgcccactgc | 1620 |
| ttcagtgtcg | catttttttc | ttcatccaga | tattccttat | agctgctgtt | tggaacctta | 1680 |
| ttgcacagga | agatagtggg | aattccacct | ttaatcatga | ccggctttcc | gtacttcgtg | 1740 |
| ttgctttggc | agtcacgctg | ggcccccatg | aattctttta | agtgctttag | atagtgggga | 1800 |
| tcaacgtcat | caatgacgtt | gtaccaggca | tcattgctat | agaccttggt | gctcagatca | 1860 |
| agatgtccac | acaagtaatt | gtgtgggtcct | aagcaccgag | cccacatcgt | tttgcccgtc | 1920 |
| ctactatccc | cctctatgac | tatgcttatg | ggcctaaaag | gccgcgcagc | ggcacacaca | 1980 |
| acattagacg | agacccaatc | gacgaggtct | gccggaactc | tgtcgaagga | tgaaattgaa | 2040 |
| aatggagaaa | cataaacctc | ggaaggaggt | tgaaaaatac | gatctaaatt | ggatatttaa | 2100 |
| ttgtgaaact | gcagaacgta | atcttttggt | gctaattcct | ttaatactct | caaagcatcg | 2160 |
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| ggcgaagcca | taaaacttgt | cgttttgatt | cggcgtccct | caacttatct | atatgattgg | 2640 |
| tgtctggagt | cctatatata | ggtaagacac | catatggcat | tattgtaatt | ttgaaaagaa | 2700 |
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 <211> 2696
 <212> DNA
 <213> Begomovirus tomato leaf curl virus

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<211> 15

<212> PRT

<213> Artificial Sequence

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<223> Synthesized

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5

10

15

<210> 8
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<210> 9
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